



**TALISMAN  
MINING LIMITED**

ASX Code: TLM



**17<sup>th</sup> December 2015**

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**Shares on Issue:**

148,559,904 (TLM)

**Options on Issue:**

6,400,000 (Unlisted)

**ASX: TLM**



**Monty Exploration Update**

*Monty Resource drilling well advanced*

*New regional exploration targets identified*

*Significant exploration planned at Springfield*

*Springfield Joint Venture now formed*

**Highlights**

- **Resource drilling at Monty is now estimated to be over 60% complete.** Large backlog of drillholes awaiting sampling, despatch and assay.

- **A maiden Mineral Resource estimate for Monty** is anticipated in the New Year.

- High-grade copper intercepts from recent assayed drilling include:

**TLDD0025**

- **9.4 metres grading 7.2% Cu and 2.2g/t Au** from 326.0m down-hole (down-hole width);

**TLDD0027**

- **1.3 metres grading 11.5% Cu and 2.2g/t Au** from 393.5m down-hole (down-hole width); and
- **10.7 metres grading 6.2% Cu and 2.0g/t Au** from 411.0m down-hole (down-hole width).

**TLDD0029**

- **8.3 metres grading 8.0% Cu and 1.1g/t Au** from 173.9 down-hole (down-hole width).

- **Joint Venture between Talisman and Sandfire now formed:**

- \$15 million sole funding by Sandfire now complete (subject to audit of final \$5 million exploration expenditure);
- Transfer of a 51% joint venture interest to Sandfire underway;
- Joint Venture budget of \$7.5 million for the 3 month period December 2015 to February 2016 (inclusive) agreed, including continued resource drilling, regional exploration activities and preliminary scoping works.

- **Significant exploration is underway or planned at the Springfield Project** by the Joint Venture within the period December 2015 to February 2016 including:

- Drilling at the **Homer Prospect has now commenced;**
- Planned RC drilling to the **north east of Monty** along the prospective Monty Trend;
- RC drilling of geochemical anomalies at **Monty South** and the **Southern Volcanics** is planned;
- First pass drilling and assessment of the **newly identified Monty Deeps** is planned; and
- Planned infill aircore drilling at **Monty South** and first pass aircore drilling of a potential structural exploration target in the **north east of the Springfield Project.**



Talisman Mining Limited (ASX: TLM, "Talisman") is pleased to announce that Sandfire Resources NL (ASX: SFR, "Sandfire") has provided an update on current and planned exploration activities at the Monty copper-gold discovery within the Talisman's Springfield Project located to the east of the DeGrussa Copper-Gold Mine (see Appendix 1).

The collar locations of advised holes drilled to date by Sandfire are shown in the plan view diagram below (see Figure 1) and in Table 1.

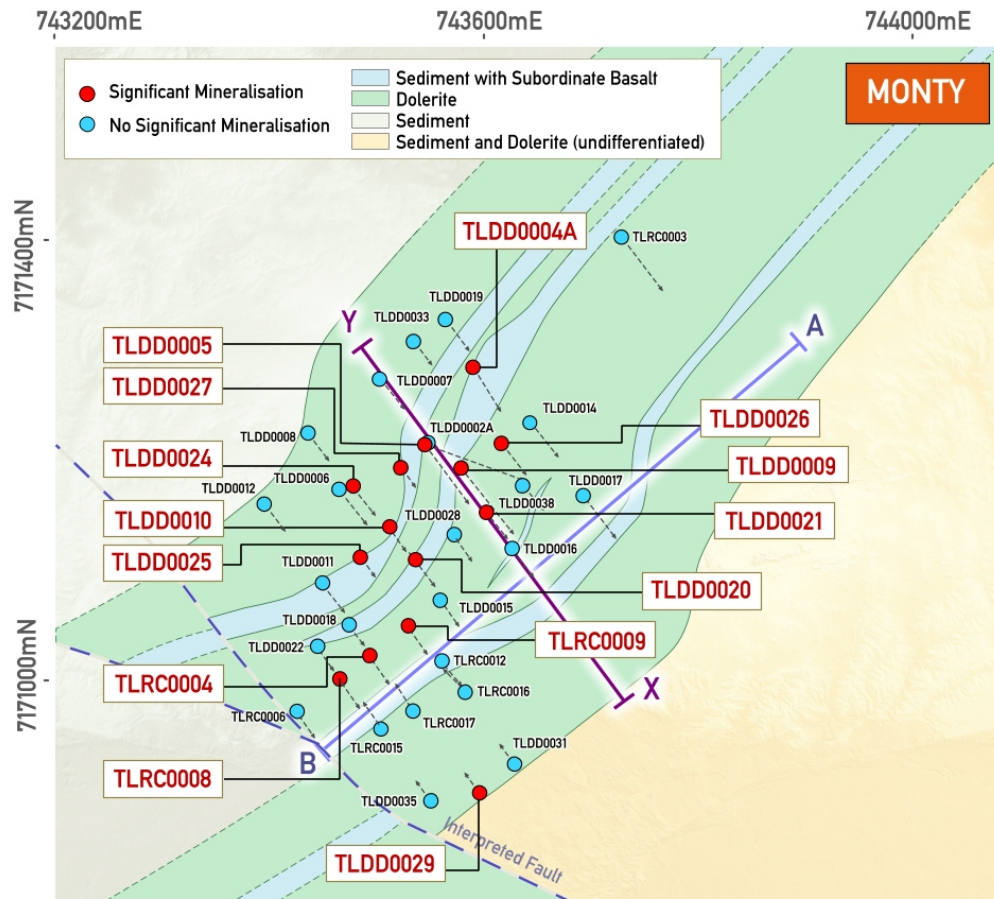


Figure 1: Plan view of Monty showing drill-hole collar locations and simplified interpreted geology.

## Monty Resource Definition Drilling

Sandfire has advised that resource definition drilling has continued and advanced at Monty with four diamond drill rigs drilling on double shift. Drilling has been focused on the definition of the Monty Lower Zone mineralisation and has been aimed at defining the edge and continuity of the mineralisation via an infill program.

Sandfire has informed Talisman that approximately 8,000 metres of drilling has been completed since the last ASX Announcement on 5 November 2015. Talisman estimates that approximately 56 drill holes have now been drilled and that based on the estimated number of planned holes, the resource definition drilling campaign at Monty is now over 60% complete.

Talisman understands that as a result of the accelerated resource definition drilling over the past two months and with other recent and ongoing exploration activity across the project, a back log has developed with respect to the processing and dispatch of diamond drill core from Monty to the assay laboratory for analysis. As such there are a significant number of assay results for recently completed holes that remain outstanding at this time.



Sandfire has advised Talisman that recent drilling intercepts are in general visually substantiating initial interpretations that were based on the wide-spaced initial exploration holes.

Latest assay results (see Table 1) provide further support and assistance in confirming the continuity and grade of the mineralisation intersected to date at Monty and include the following results from the Lower Zone:

**TLDD0025**

- **9.4 metres grading 7.2% Cu and 2.2g/t Au from 326.0m down-hole (down-hole width);**

**TLDD0027**

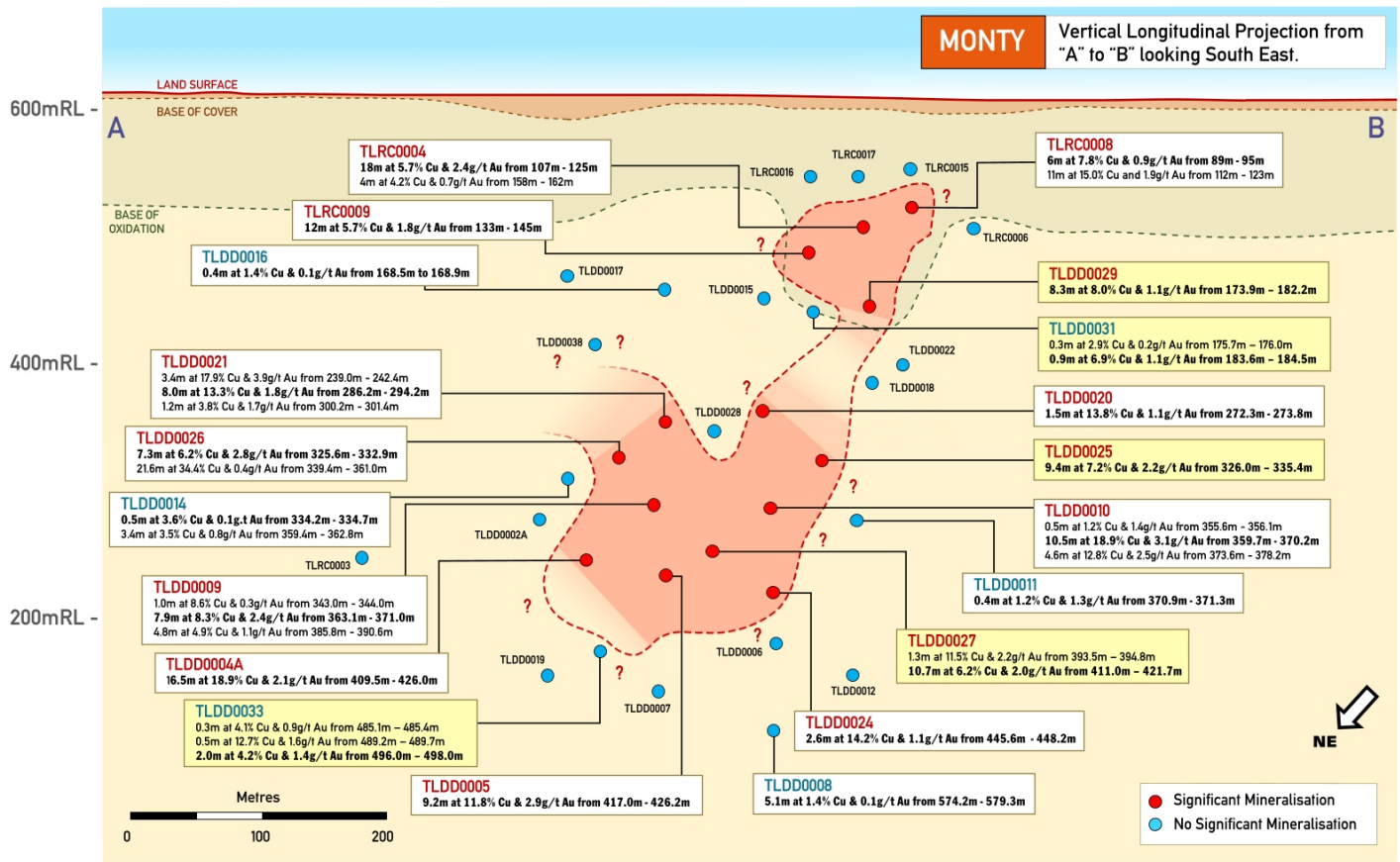
- **1.3 metres grading 11.5% Cu and 2.2g/t Au from 393.5m down-hole (down-hole width); and**
- **10.7 metres grading 6.2% Cu and 2.0g/t Au from 411.0m down-hole (down-hole width).**

Drilling has also potentially grown the extents of the mineralisation intersected to date in the Monty Upper Zone via the result below:

**TLDD0029**

- **8.3 metres grading 8.0% Cu and 1.1g/t Au from 173.9m down-hole (down-hole width);**

An updated vertical longitudinal projection provided by Sandfire (looking to the south-east) is shown in *Figure 2* below, with new assayed intercepts highlighted in yellow.



*Figure 2: Vertical Longitudinal Projection and initial interpretation of the Monty Prospect with drill-hole pierce points at the top of the primary intercept shown in bold. All intercepts are down-hole widths. A significant intersection is defined here as any intersection  $\geq 3m$  estimated true width that has a grade of  $\geq 2.0\%$  Cu, inclusive of non-mineralised material. To determine whether intersections that are  $<3m$  estimated true width are significant in terms of the above definition, non-mineralised material has been included at a grade of 0.0% Cu (weighted by width) until a 3m estimated true width is reached. If the overall grade remained  $>2.0\%$  Cu, with the non-mineralised material included, then the intersection is considered significant. New intersections (not previously reported) are highlighted in yellow.*





Resource drilling is anticipated to continue through to mid-February on a nominal 40m x 40m pattern with the results to be used in calculating the maiden Mineral Resource estimate for Monty in the New Year.

## **Farm-In / Joint Venture Agreement**

As announced in Talisman's September 2015 Quarterly Activities Report, Sandfire has provided Notice that as of 30 September 2015 it had sole-funded \$10 million of exploration expenditure at Talisman's Doolgunna projects. Following the satisfactory audit of this expenditure, Sandfire has now formally earned a 51% interest in the Doolgunna project tenements. Formal transfer of the 51% interest is underway.

Sandfire has recently provided a further Notice stating it has sole-funded a further \$5 million of exploration expenditure in order to earn an additional 19% interest in the Doolgunna projects tenements.

The terms of the original farm-in were in an agreement dated 20 December 2013 ("**Farm-in Agreement**") as announced to the ASX on 20 December 2013. Talisman is currently auditing this claimed expenditure before formally transferring the 19% interest to Sandfire.

As Sandfire has now reached the \$15 million expenditure threshold (project to date) Sandfire's sole-funding obligation at Springfield has ceased and an unincorporated Joint Venture has been formed between Talisman and Sandfire. Talisman will now fund 30 per cent of all expenditure at Springfield, with Sandfire funding the remaining 70 per cent.

Sandfire has been appointed the initial Manager of the Joint Venture.

The parties are presently negotiating the terms of a Joint Venture Agreement. Pending the entering into of this agreement, the Farm-in Agreement continues to bind the parties.

The Joint Venture has held its first meeting to approve the budgeted expenditure of \$7.5 million on exploration over the next three months. This programme and budget is commencing December 2015. Talisman's share of this approved budget is approximately \$2.25 million and an initial cash call has been made and is payable by 31 December 2015.

## **Planned Regional Exploration Activity – December 2015 to February 2016**

Joint Venture activities for December 2015 to February 2016 are planned to include exploration activities in addition to the continuing definition and infill drilling of the Monty mineralisation.

These planned activities include drilling programs that are stepping further afield and actively targeting additional accumulations of mineralisation along the 5km long Monty trend and also within the broader Springfield Project, which remains extremely prospective for further discoveries.

The timing of planned exploration drilling at Springfield outside of the Monty resource drilling is dependent on the availability of the RC drill rig and its ability to be released from drilling pre-collar holes for the Mineral Resource definition program.

## **Monty Deeps**

An exploration target outside of the Monty mineralised envelope (Monty Deeps) is planned to be tested for the potential to host additional massive sulphide accumulations in proximity to the existing Monty Lower Zone mineralisation.



To date, three holes (TLDD0007, TLDD0008 and TLDD0012) underneath and to the south west of the Monty Lower Zone have demonstrated the potential continuation of the host VMS exhalative stratigraphy.

Drill hole TLDD0008 (5.1m @ 1.4% Cu and 0.1g/t Au), located approximately 80 metres below the current interpretation of the Lower Zone Monty mineralised envelope has **highlighted the potential for further mineralisation within the host VMS horizon close to Monty.**

Desktop activities and diamond exploration drilling are planned for the first quarter of 2016 in order to provide an initial test of the potential in this location.

### **Monty Trend**

The Joint Venture plans to complete a broadly spaced RC drilling program along the interpreted strike extension of the Monty host stratigraphy to the **north east of the Monty mineralisation.**

Aircore drilling completed along strike from Monty to date has assisted Sandfire to identify the interpreted continuation of the prospective host stratigraphy along strike from Monty. Reconnaissance RC drilling is planned to test for the continuation of the Monty host horizon in the New Year. This reconnaissance exploration may assist in the development of new targets along this highly prospective VMS trend.

### **Homer Trend**

A series of drill holes are planned at **Homer** which is located 4km along strike to the east of the DeGrussa Mine. Historic drill holes, TLDD0001 (August 2014) and TLDD0003 (June 2015), both intersected the interpreted extension of the DeGrussa C5 lens host VMS stratigraphy. This important interpretation indicates the significant exploration potential of the Homer Trend to host accumulations of VMS copper-gold mineralisation.

A **new drill hole**, located approximately 3 kilometres along strike to the east of TLDD0003, targeted on a geochemical anomaly **is now underway.**

Further drilling at Homer is currently planned, but its extent and timing will be driven by initial results and interpretations of the current drill hole.

### **Springfield Geochemical Anomalies – New Exploration Targets**

Further afield from both the Monty and Homer prospective trends, aircore drilling and detailed geochemical analysis and interpretation **has identified a series of geochemical anomalies** that present as **new exploration targets** and warrant follow up RC drilling.

These geochemical anomalies are located in areas within the **Monty, Monty South and Southern Volcanics** trends.

These new exploration targets are planned to be tested by RC drilling in the New Year.

### **Aircore Drilling**

*To date, aircore drilling across the Springfield Project has proven to be an effective exploration technique to identify underlying geology and also provide valuable geochemical data that may assist vectoring towards prospective VMS horizons.*

*Two aircore drilling programs are planned to be conducted by the Joint Venture over the next two to three months.*



## **Monty South**

Recent work supports an interpretation that the Monty South prospect may represent a potentially significant extension of the highly prospective Monty Trend. This potential extension is in addition to the currently interpreted 5 km Monty VMS trend.

This potential southern extension of the Monty Trend is interpreted to have undergone significant structural deformation that offsets the prospective Monty South stratigraphy from the Monty Trend by as much as 70 degrees.

Aircore drilling completed to date has identified the interpreted continuation of the prospective host VMS stratigraphy with supportive geochemistry.

An aircore infill drilling program is planned in the New Year at Monty South to increase the geological understanding of this broader prospect and potentially generate further exploration targets south of the 5 km Monty VMS trend.

## **North East Springfield Structural Target**

Assessment of a geochemical anomaly located approximately five kilometres to the north-east of Monty, within the Yerrida Basin, is considered to be situated along a regionally significant fault zone.

This zone is interpreted to have the potential to host epigenetic style copper mineralisation similar to that seen at the Thaduna deposit approximately twenty kilometres to the east.

A program of aircore drilling is partially complete and is planned to recommence in the first quarter of 2016. This drilling program is anticipated to enable a further assessment of the exploration potential of this prospect.

## **Planned Scoping Projects**

In addition to the aforementioned exploration work and resource definition drilling at Monty, initial scoping studies are underway or planned to commence during the next two to three months.

These initial study works include resource modelling, mining studies, infrastructure assessments, as well as preliminary metallurgical, geotechnical, hydrological and environmental studies.

## **ENDS**

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## **Competent Person's Statement**

*Information in this ASX release that relates to Exploration Results is based on information compiled by Mr Graham Leaver, who is a member of the Australian Institute of Geoscientists. Mr Leaver is a full time employee of Talisman Mining Ltd and has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Mineral Resources and Ore Reserves". Mr Leaver consents to the inclusion in this report of the matters based on information in the form and context in which it appears.*



**Table 1 – Drill-hole Information Summary, Monty Prospect**

Details and co-ordinates of all relevant drill hole collars are provided in the table below:

Hole ID	Depth	Dip	Azimuth	Grid_ID	East	North	RL	Lease ID	Hole Status
TLDD0002A	463	-61°	110°	MGA94_50	743544	7171211	602	E52/2282	Complete
TLDD0004A	817	-60°	148°	MGA94_50	743588	7171281	601	E52/2282	Complete
TLDD0005	478	-62°	139°	MGA94_50	743544	7171210	602	E52/2282	Complete
TLDD0006	554	-62°	140°	MGA94_50	743469	7171174	601	E52/2282	Complete
TLDD0007	589	-62°	138°	MGA94_50	743504	7171271	601	E52/2282	Complete
TLDD0008	688	-62°	138°	MGA94_50	743441	7171223	600	E52/2282	Complete
TLDD0009	472	-61°	140°	MGA94_50	743578	7171190	602	E52/2282	Complete
TLDD0010	433	-62°	142°	MGA94_50	743514	7171138	601	E52/2282	Complete
TLDD0011	472	-62°	141°	MGA94_50	743451	7171092	598	E52/2282	Complete
TLDD0012	598	-62°	140°	MGA94_50	743403	7171155	599	E52/2282	Complete
TLDD0014	399	-62°	143°	MGA94_50	743638	7171231	603	E52/2282	Complete
TLDD0015	376	-62°	146°	MGA94_50	743561	7171073	602	E52/2282	Complete
TLDD0016	274	-61°	147°	MGA94_50	743621	7171119	604	E52/2282	Complete
TLDD0017	236	-62°	146°	MGA94_50	743686	7171166	605	E52/2282	Complete
TLDD0018	340	-62°	146°	MGA94_50	743471	7171054	599	E52/2282	Complete
TLDD0019	552	-62°	141°	MGA94_50	743566	7171329	600	E52/2282	Complete
TLDD0020	340	-61°	141°	MGA94_50	743536	7171106	602	E52/2282	Complete
TLDD0021	331	-62°	144°	MGA94_50	743599	7171152	603	E52/2282	Complete
TLDD0022	304	-62°	141°	MGA94_50	743441	7171035	599	E52/2282	Complete
TLDD0024	571	-60°	141°	MGA94_50	743470	7171172	600	E52/2282	Complete
TLDD0025	406	-60°	141°	MGA94_50	743481	7171113	600	E52/2282	Complete
TLDD0026	409	-59°	141°	MGA94_50	743609	7171209	602	E52/2282	Complete
TLDD0027	511	-60°	143°	MGA94_50	743521	7171193	602	E52/2282	Complete
TLDD0028	441	-62°	143°	MGA94_50	743569	7171129	602	E52/2282	Complete
TLDD0029	247	-60°	319°	MGA94_50	743594	7170898	602	E52/2282	Complete
TLDD0030	237	-62°	317°	MGA94_50	743626	7170922	603	E52/2282	Complete
TLDD0033	589	-62°	142°	MGA94_50	743536	7171306	600	E52/2282	Complete
TLDD0038	313	-59°	147°	MGA94_50	743633	7171178	604	E52/2282	Complete
TLRC0003	544	-61°	144°	MGA94_50	743720	7171393	599	E52/2282	Complete
TLRC0004	306	-62°	142°	MGA94_50	743497	7171025	600	E52/2282	Complete
TLRC0006	318	-62°	143°	MGA94_50	743430	7170973	598	E52/2282	Complete
TLRC0008	294	-62°	143°	MGA94_50	743461	7171001	599	E52/2282	Complete
TLRC0009	265	-62°	141°	MGA94_50	743527	7171050	601	E52/2282	Complete
TLRC0012	210	-62°	143°	MGA94_50	743553	7171017	602	E52/2282	Complete
TLRC0015	138	-60°	320°	MGA94_50	743503	7170953	600	E52/2282	Complete
TLRC0016	120	-58°	317°	MGA94_50	743580	7170985	602	E52/2282	Complete
TLRC0017	120	-60°	318°	MGA94_50	743548	7170968	601	E52/2282	Complete



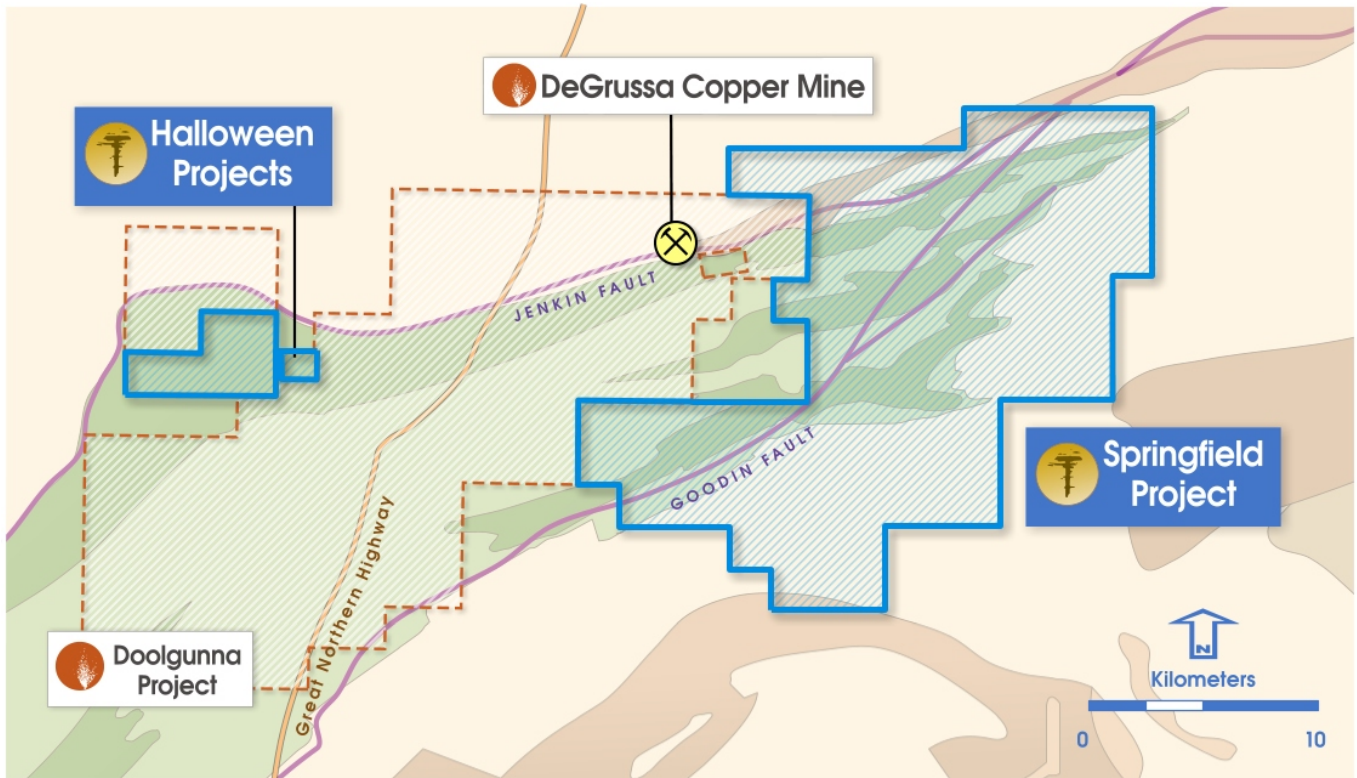


**Table 2 – Drill-hole Assay Intersections >1% for the Monty Prospect**

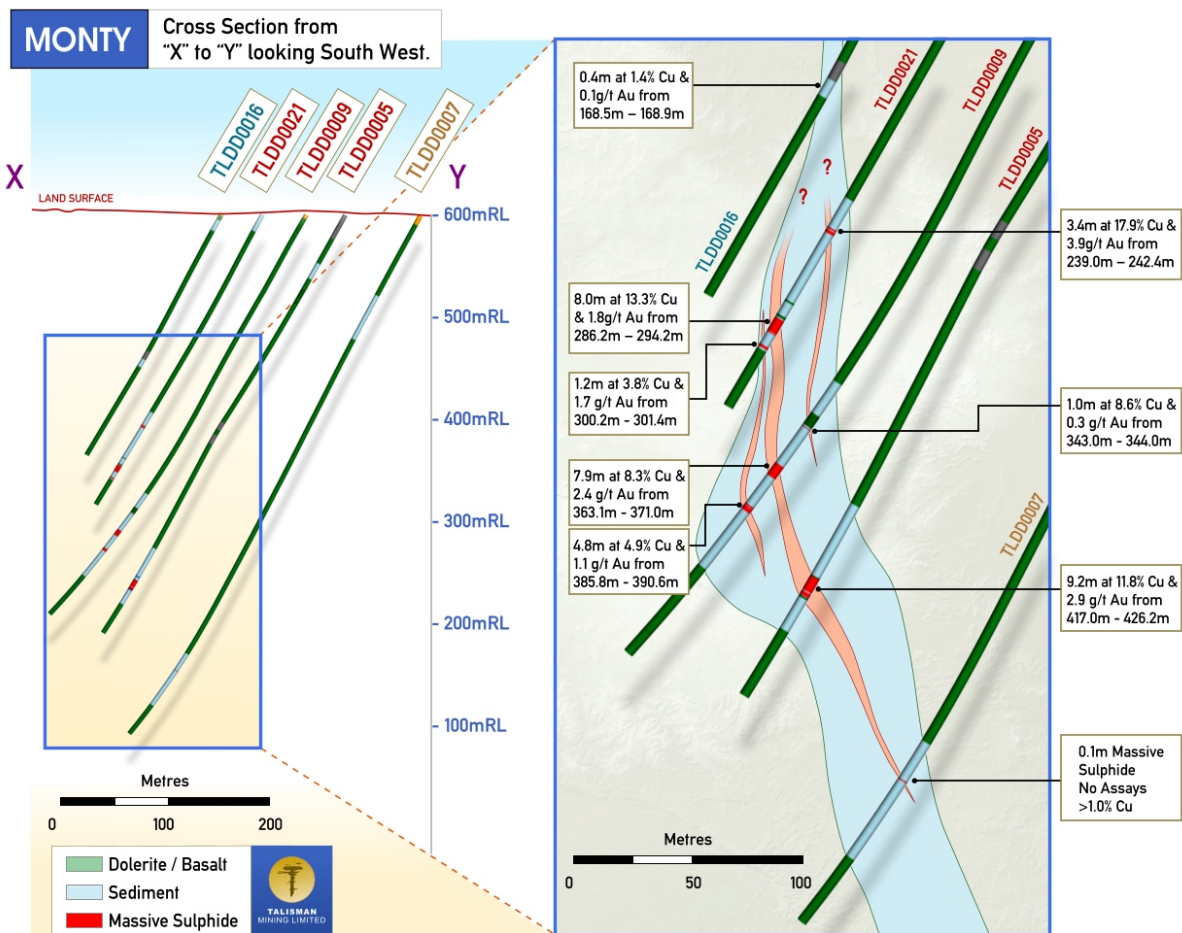
Details of all relevant intersections provided below. Estimated true widths have been calculated using estimated dip and dip-direction of modelled mineralisation surfaces at the drill-hole intersection and azimuth and dip of the drill-hole.

Hole ID	Interval	From (m)	To (m)	Downhole Width (m)	Estimated True Width (m)	Intersection	
						Cu (%)	Au (g/t)
TLDD0004A		409.5	426.0	16.5	10.9	18.9	2.1
TLDD0005		417.0	426.2	9.2	6.1	11.8	2.9
TLDD0008		574.2	579.3	5.1	3.2	1.4	0.1
TLDD0009	1	343.0	344.0	1.0	0.5	8.6	0.3
	2	363.1	371.0	7.9	5.8	8.3	2.4
	3	385.8	390.6	4.8	3.0	4.9	1.1
TLDD0010	1	355.6	356.1	0.5	0.3	1.2	1.4
	2	359.7	370.2	10.5	6.3	18.9	3.1
	3	373.6	378.2	4.6	2.9	12.8	2.5
TLDD0011		370.9	371.3	0.4	0.2	1.2	1.3
TLDD0014	1	334.2	334.7	0.5	0.3	3.6	0.1
	2	359.4	362.8	3.4	2.0	3.5	0.8
TLDD0016		168.5	168.9	0.4	0.3	1.4	0.1
TLDD0020		272.3	273.8	1.5	0.9	13.8	1.1
TLDD0021	1	239.0	242.4	3.4	1.8	17.9	3.9
	2	286.2	294.2	8.0	4.6	13.3	1.8
	3	300.2	301.4	1.2	0.7	3.8	1.7
TLDD0024		445.6	448.2	2.6	1.7	14.2	1.1
TLDD0025		326.0	335.4	9.4	3.6	7.2	2.2
TLDD0026	1	325.6	332.9	7.3	4.7	6.2	2.8
	2	339.4	361.0	21.6	15.2	34.4	0.4
TLDD0027	1	393.5	394.8	1.3	0.9	11.5	2.2
	2	411.0	421.7	10.7	7.0	6.2	2.0
TLDD0029		173.9	182.2	8.3	6.6	8.0	1.1
TLDD0031	1	175.7	176.0	0.3	0.2	2.9	0.2
	2	183.6	184.5	0.9	0.7	6.9	1.1
TLDD0033	1	485.1	485.4	0.3	0.2	4.1	0.9
	2	489.2	489.7	0.5	0.3	12.7	1.6
	3	496.0	498.0	2.0	1.3	4.2	1.4
TLRC0004	1	107.0	125.0	18.0	5.1	5.7	2.4
	2	158.0	162.0	4.0	1.2	4.2	0.7
TLRC0008	1	89.0	95.0	6.0	1.4	7.8	0.9
	2	112.0	123.0	11.0	2.5	15.0	1.9
TLRC0009		133.0	145.0	12.00	2.8	5.7	1.8





Appendix 1: Talisman's Doolgunna Copper-Gold Projects subject to the \$15M Exploration Farm-In Joint Venture with Sandfire Resources NL



Appendix 2 – Interpretive cross-section of the Monty mineralisation (Lower Zone)



## Appendix 3 - JORC TABLE 1

### Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>• <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down-hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The sampling method employed by Sandfire is half-core sampling of NQ2 core from diamond drilling (DD).</li> <li>• Sandfire collect RC samples by cone splitter for single metre samples or a sampling spear for first pass composite samples using a face sampling hammer with a nominal hole diameter of 140mm.</li> <li>• Sampling is guided by Sandfire protocols as per industry standard.</li> <li>• Diamond drill core sample size reduction is through a Jaques jaw crusher to -10mm and a second stage reduction via Boyd crusher to -4mm. Representative sub samples are split and pulverised via an LM5 mill.</li> <li>• RC samples are crushed to -4mm through a Boyd crusher and representative sub samples are split and pulverised with an LM5 mill.</li> <li>• Pulverising is to nominal 90% passing -75µm and is checked using wet sieving technique.</li> <li>• Samples are assayed using Mixed 4 Acid Digest (MAD) 0.3g charge and MAD Hotbox 0.15g charge methods with ICPOES or ICPMS.</li> <li>• Fire Assay is completed by firing 40g portion of the sample with ICPMS finish.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>• <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond drilling is completed using NQ2 size coring equipment.</li> <li>• RC drilling is with a face sampling hammer of a nominal 140mm hole diameter.</li> <li>• All drill collars are surveyed using RTK GPS.</li> <li>• All core, where possible is oriented using a Reflex ACT II RD orientation tool.</li> <li>• Downhole surveying is undertaken using a gyroscopic survey instrument.</li> </ul>





<p>Drill sample recovery</p>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond core recovery is logged and captured into the database. Core recoveries are measured by drillers for every drill run. The core length recovered is physically measured for each run and recorded and used to calculate the core recovery as a percentage of core recovered.</li> <li>• Appropriate measures are taken to maximise sample recovery and ensure the representative nature of the samples. This includes diamond core being reconstructed into continuous intervals on angle iron racks for orientation, metre marking and reconciled against core block markers.</li> <li>• RC sample recovery is good with almost no wet sampling in the project area.</li> <li>• Samples are routinely weighed and the information captured into the central secured database.</li> <li>• No sample recovery issues have impacted on potential sample bias.</li> </ul>
<p>Logging</p>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Geological logging is completed for all holes and is representative across the orebody. The lithology, alteration and structural characteristics of core are logged directly to a digital format following procedures, and using Sandfire NL geologic codes. Data is imported into Sandfire NL's central database after validation in LogChief™.</li> <li>• Logging is both qualitative and quantitative depending on field being logged.</li> <li>• All cores are photographed.</li> <li>• All drill holes are fully logged.</li> </ul>
<p>Sub-sampling techniques and sample preparation</p>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond core orientations are completed where possible and all core is marked prior to sampling. Half core samples are produced using an Almonte Core Saw. Samples are weighed and recorded.</li> <li>• RC samples are split using a cone or riffle splitter. The majority of samples collected are dry. On occasion that wet samples are encountered they are dried prior to splitting with a riffle splitter.</li> <li>• All samples are sorted, dried at 80° for up to 24 hours and weighed. Samples are then crushed through a Jaques crusher to nominal -10mm. A second stage crushing is through a Boyd crusher to nominal -4mm.</li> <li>• Sample splits are weighed at a frequency of 1:20 and entered into the job results file. Pulverising is completed using LM5 mill to 90% passing 75µm using wet sieving technique.</li> <li>• 1:20 grind quality checks are completed for 90% passing 75µm criteria to ensure representativeness of sub-samples.</li> </ul>





<p>Sub-sampling techniques and sample preparation <i>(Continued)</i></p>		<ul style="list-style-type: none"> <li>• Sampling is carried out in accordance with Sandfire protocols as per industry best practice.</li> <li>• No field duplicates have been taken.</li> <li>• The sample sizes are considered appropriate for VHMS and Gold mineralisation types.</li> </ul>
<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples are assayed using Mixed 4 Acid Digest (MAD) 0.3g charge and MAD Hotbox 0.15g charge methods with ICPOES or ICPMS. The samples are digested and refluxed with a mixture of acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric acids and analysis conducted for multi elements including Cu, Pb, Zn, Ag, As, Fe, S, Sb, Bi, Mo, Re, Mn, Co, Cd, Cr, Ni, Se, Te, Ti, Zr, V, Sn, W and Ba. The MAD Hotbox method is an extended digest method that approaches a total digest for many elements however some refractory minerals are not completely attacked. The elements S, Cu, Zn, Co, Fe, Ca, Mg, Mn, Ni, Cr, Ti, K, Na, V are determined by ICPOES, and Ag, Pb, As, Sb, Bi, Cd, Se, Te, Mo, Re, Zr, Ba, Sn, W are determined by ICPMS. Samples are analysed for Au, Pd and Pt by firing a 40g of sample with ICP AES/MS finish. Lower sample weights are employed where samples have very high S contents. This is a classical FA process and results in total separation of Au, Pt and Pd in the samples.</li> <li>• The analytical methods are considered appropriate for this mineralisation styles.</li> <li>• No geophysical tools are used in the analysis.</li> <li>• Sandfire DeGrussa QAQC protocol is considered industry standard with standard reference material (SRM) submitted on regular basis with routine samples. SRMs and blanks are inserted at a minimum of 5% frequency rate.</li> </ul>
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Significant intersections have been verified by alternate Sandfire personnel.</li> <li>• None of the drillholes in this report are twinned.</li> <li>• Primary data is captured on field Toughbook laptops using Logchief™ Software. The software has validation routines and data is then imported into a secure central database.</li> <li>• The primary data is always kept and is never replaced by adjusted or interpreted data.</li> </ul>



<p>Location of data points</p>	<ul style="list-style-type: none"> <li>• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>• Specification of the grid system used.</li> <li>• Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>• The Sandfire Survey Department undertakes survey works under the guidelines of best industry practice.</li> <li>• All drill collars are accurately surveyed using RTK GPS system within +/-50mm of accuracy (X, Y, Z).</li> <li>• Downhole surveys are completed by gyroscopic downhole methods at regular intervals.</li> <li>• Coordinate and azimuth are reported in MGA 94 Zone 50.</li> <li>• Topographic control was established from LiDar laser imagery technology.</li> </ul>
<p>Data spacing and distribution</p>	<ul style="list-style-type: none"> <li>• Data spacing for reporting of Exploration Results.</li> <li>• Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>• Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill spacing at Monty has been conducted on a nominal 80m x 80m spacing to define the extents of mineralisation.</li> <li>• Infill drilling on a nominal 40m x 40m grid pattern is in progress to provide additional controls on the nature and geometry of the mineralisation.</li> <li>• Exploration drill spacing and distribution of exploration results is not sufficient to support Mineral Resources or Ore Reserves at this stage.</li> <li>• No sample compositing has been applied to these exploration results.</li> </ul>
<p>Orientation of data in relation to geological structure</p>	<ul style="list-style-type: none"> <li>• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>• If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>• No significant orientation based sampling bias is known at this time.</li> <li>• The drill holes may not necessarily be perpendicular to the orientation of the intersected mineralisation.</li> <li>• Down-hole intervals are converted to estimated true widths.</li> </ul>
<p>Sample security</p>	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>• Sandfire ensures appropriate security measures are taken to dispatch samples to the laboratory. Chain of custody of samples is being managed by Sandfire Resources NL. Samples are stored onsite and transported to laboratory by a licence transport company in sealed bulka bags. The laboratory receipts received samples against the sample dispatch documents and issues a reconciliation report for every sample batch.</li> </ul>
<p>Audits or reviews</p>	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>• No external audits or reviews of the sampling techniques and data have been completed.</li> </ul>



## Section 2 Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sandfire Resources NL and Talisman Mining Limited have formed a Joint Venture which covers Talisman's Doolgunna Project tenements (E52/2282, E52/2313, E52/2466, E52/2275 and P25/1241). Sandfire and Talisman hold a 70%:30% interest respectively in the Joint Venture, with the exception of tenement E52/2275 where interests of approximately 81%:19% respectively are held. Both parties are contributing proportionately to expenditure.</li> <li>Sandfire Resources NL has been appointed as the Joint Venture Manager.</li> <li>All tenements are current and in good standing.</li> <li>The Talisman tenements are currently subject to a Native Title Claim by the Yungunga-Nya People (WAD6132/98). Sandfire currently has a Land Access Agreement in place with the Yungunga-Nya Native Title Claimants and have assumed management of Heritage Agreements which were executed by Talisman. These agreements allow Sandfire to carry out mining and exploration activities on their traditional land.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Aside from Sandfire Resources and Talisman Mining Limited there has been no recent exploration undertaken on the Talisman Project.</li> <li>Historic exploration work at Springfield completed prior to Talisman's tenure included geochemical soil and rock chip sampling combined with geological mapping. Some targeted RC drilling was completed over gold and diamond targets.</li> </ul>
Geology	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Doolgunna project lies within the Proterozoic-aged Bryah rift basin enclosed between the Archaean Marymia Inlier to the north and the Proterozoic Yerrida basin to the south.</li> <li>The principal exploration targets at the Doolgunna Projects are Volcanogenic Massive Sulphide (VMS) deposits located with the Proterozoic Bryah Basin of Western Australia.</li> <li>The recent discovery of Bornite at Doolgunna is new and its full context and implication is still to be determined.</li> </ul>



<p>Drill hole Information</p>	<ul style="list-style-type: none"> <li>• <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length</i></li> </ul> </li> <li><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to Table 1 of this document – Drillhole Information Summary, Monty Prospect.</li> </ul>
<p>Data aggregation methods</p>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>• <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Significant intersections are based on greater than 0.5% Cu and may include up to a maximum of 3.0m of internal dilution, with a minimum composite grade of 1.0% Cu.</li> <li>• Cu grades used for calculating significant intersections are uncut.</li> <li>• Minimum and maximum diamond core sample intervals used for intersection calculation are 0.3m and 1.2m respectively subject to location of geological boundaries.</li> <li>• Reported intersections from RC drilling are based on regular 1 metre sample intervals.</li> <li>• No metal equivalents are used in the intersection calculation.</li> <li>• Where core loss occurs; the average length-weighted grade of the two adjacent samples are attributed to the interval for the purpose of calculating the intersection. The maximum interval of missing core which can be incorporated with the reported intersection is 1m.</li> </ul>





<p>Relationship between mineralisation widths and intercept lengths</p>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>• All drill-hole intercepts in this release are reported as both down-hole intersection widths and estimated true width intersections (refer Table 2: Drill hole assay intersections &gt;1% for the Monty Prospect).</li> <li>• The geometry of the mineralisation has been interpreted using top of mineralisation surfaces that link mineralised zones, thought to be continuous, between neighbouring drillholes. Given the variable, and often steeply dipping orientation of the mineralisation, the angle between mineralisation and drillholes is not consistent. Downhole intercepts for each drillhole are converted to estimated true widths using a trigonometric function that utilises the dip and dip direction of the interpreted top of mineralisation surface (at the intersection point of that drillhole) as well as the dip and azimuth of the drillhole at that position.</li> </ul>
<p>Diagrams</p>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Appropriate maps with scale are included within the body of the accompanying document.</li> </ul>
<p>Balanced reporting</p>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The accompanying document is considered to represent a balanced report.</li> <li>• Reporting of grades is done in a consistent manner.</li> </ul>
<p>Other substantive exploration data</p>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Other exploration data collected is not considered as material to this document at this stage. Further data collection will be reviewed and reported when considered material.</li> </ul>



Further work

- *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*
- *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*
- Drilling is continuing at Monty to define the extents of mineralisation. Drilling is being conducted on a nominal 40m x 40m grid pattern.
- Other drilling planned across the Springfield JV project includes reconnaissance and exploration drilling with diamond, RC and AC drilling techniques.